

CLAIMS

1. A method for providing transitions between operating modes of a device, wherein the operating modes comprise a privileged mode and a non-privileged mode, and the method comprising:

executing an application in the non-privileged mode;
generating an interrupt to request the services of a privileged function; and
transitioning to the privileged mode to execute the privileged function, wherein the privileged function is executed as part of the same thread of execution as the application.

2. The method of claim 1, wherein the interrupt is a software interrupt.

3. The method of claim 1, further comprising validating that the privileged function is a trusted function.

4. The method of claim 1, further comprising validating that the execution of the privileged function will not exceed access rights associated with the application.

5. The method of claim 1, further comprising transitioning to the non-privileged mode to execute the application when the execution of the privileged function is completed.

6. The method of claim 1, wherein the step of transitioning comprises switching to a privileged mode stack.

7. The method of claim 1, wherein the device is a wireless device.

8. Apparatus for providing transitions between operating modes of a device, wherein the operating modes comprise a privileged mode and a non-privileged mode, the apparatus comprising:

processing logic that operates to execute an application in the non-privileged mode;

interrupt logic that operates to receive an interrupt that requests the services of a privileged function; and

transition logic that operates to transition to the privileged mode to execute the privileged function, wherein the privileged function is executed as part of the same execution thread as the application.

9. The apparatus of claim 8, wherein the interrupt is a software interrupt.

10. The apparatus of claim 8, further comprising validation logic that operates to validate that the privileged function is a trusted function.

11. The apparatus of claim 8, further comprising validation logic that operates to validate that the execution of the privileged function will not exceed access rights associated with the application.

12. The apparatus of claim 8, wherein the device is a wireless device.

13. Apparatus for providing transitions between operating modes of a device, wherein the operating modes comprise a privileged mode and a non-privileged mode, the apparatus comprising:

means for executing an application in the non-privileged mode;

means for receiving an interrupt that requests the services of a privileged function; and

means for transitioning to the privileged mode to execute the privileged function, wherein the privileged function is executed as part of the same execution thread as the application.

14. The apparatus of claim 13, wherein the interrupt is a software interrupt.

15. The apparatus of claim 13, further comprising means for validating that the privileged function is a trusted function.

16. The apparatus of claim 13, further comprising means for validating that the execution of the privileged function will not exceed access rights associated with the application.

17. The apparatus of claim 13, wherein the device is a wireless device.

18. A computer-readable media comprising instructions, which when executed by a processor in a device, operate to provide transitions between operating

modes of the device, wherein the operating modes comprise a non privileged mode and a privileged mode, and the computer-readable media comprising:

instructions for executing an application in the non-privileged mode;

instructions for generating an interrupt to request the services of a privileged function; and

instructions for transitioning to the privileged mode to execute the privileged function, wherein the privileged function is executed as part of the same thread of execution as the application.

19. The computer-readable media of claim 18, wherein the interrupt is a software interrupt.

20. The computer-readable media of claim 18, further comprising instructions for validating that the privileged function is a trusted function.

21. The computer-readable media of claim 18, further comprising instructions for validating that the execution of the privileged function will not exceed access rights associated with the application.

22. The computer-readable media of claim 18, further comprising instructions for transitioning to the non-privileged mode to execute the application when the execution of the privileged function is completed.

23. The computer-readable media of claim 18, wherein the instructions for transitioning comprise instructions for switching to a privileged mode stack.

24. The computer-readable media of claim 18, wherein the device is a wireless device..